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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/517,365 12/10/2004		Kenichiro Kodama	Q84976	5580	
23373 75	90 07/07/2005 ·	•	EXAMINER		
SUGHRUE M		LY, NGHI H			
2100 PENNSYLVANIA AVENUE, N.W. SUITE 800			ART UNIT	PAPER NUMBER	
WASHINGTON, DC 20037			2686		
			DATE MAILED: 07/07/2004	DATE MAILED: 07/07/2005	

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application	on No.	Applicant(s)	
		10/517,36	/517,365 KODAMA ET AL.		
	Office Action Summary	Examiner	•	Art Unit	
		Nghi H. Ly	/	2686	
Period for	- The MAILING DATE of this communic	ation appears on the	cover sheet with th	e correspondence address	
A SHO THE N - Extens after S - If the p - If NO p - Failure Any re	DRTENED STATUTORY PERIOD FOMALLING DATE OF THIS COMMUNIC sions of time may be available under the provisions of SX (6) MONTHS from the mailing date of this communication for reply specified above is less than thirty (30) period for reply is specified above, the maximum state to reply within the set or extended period for reply were ply received by the Office later than three months afted patent term adjustment. See 37 CFR 1.704(b).	CATION.  f 37 CFR 1.136(a). In no evo nication.  days, a reply within the statu utory period will apply and wi ill, by statute, cause the app	ent, however, may a reply be utory minimum of thirty (30) ill expire SIX (6) MONTHS fr lication to become ABANDO	e timely filed  days will be considered timely, om the mailing date of this communic NED (35 U.S.C. § 133).	ation.
Status					
2a)☐ 3)☐	Responsive to communication(s) filed This action is <b>FINAL</b> . 2l Since this application is in condition followed in accordance with the practical	o)⊠ This action is n or allowance except	on-final. for formal matters,		ts is
Disposition	on of Claims				
5)	Claim(s) <u>1-6</u> is/are pending in the apple la) Of the above claim(s) is/are Claim(s) is/are allowed. Claim(s) <u>1-6</u> is/are rejected. Claim(s) is/are objected to. Claim(s) are subject to restriction	e withdrawn from co			
Application	on Papers				
10)□ T	The specification is objected to by the The drawing(s) filed on is/are: Applicant may not request that any object Replacement drawing sheet(s) including the oath or declaration is objected to	a) accepted or b) ion to the drawing(s) be the correction is require	ne held in abeyance. Seed if the drawing(s) is	See 37 CFR 1.85(a). objected to. See 37 CFR 1.12	• •
Priority u	nder 35 U.S.C. § 119			•	
12)□ <i>A</i> a)□	Acknowledgment is made of a claim for All b) Some * c) None of:  1. Certified copies of the priority do None of:  2. Certified copies of the priority do None of:  3. Copies of the certified copies of application from the Internation of the attached detailed Office action	ocuments have bee ocuments have bee f the priority docume al Bureau (PCT Rul	n received. n received in Applic ents have been rece e 17.2(a)).	ation No ived in this National Stage	,
Attachment(	s)				
2) D Notice 3) Inform	of References Cited (PTO-892) of Draftsperson's Patent Drawing Review (PTo- ation Disclosure Statement(s) (PTO-1449 or PNo(s)/Mail Date 12/10/04.		4) Interview Summa Paper No(s)/Mail 5) Notice of Informa 6) Other:		

Application/Control Number: 10/517,365 Page 2

Art Unit: 2686

### **DETAILED ACTION**

### Information Disclosure Statement

1. The information disclosure statement filed 12/10/2004 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

## Claim Rejections - 35 USC § 103

- 2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woo (US 6,681,125) in view of Aoto (US 6,615,055).

Regarding claim 1, Woo teaches a folding type portable radio communication terminal (see fig.2) comprising: a first chassis provided with a display part at its front surface side (see fig.2, item 12), a second chassis provided with an operation part at its front surface side (fig.2, item 13), a coupling part for openably/closably coupling end parts of the first and the second chassis so that the front surface sides the second chassis and the first chassis face each other (see fig.2, item 15), and a whip antenna for data transmission/reception provided in the coupling part side end part of the second chassis to be capable of being pulled out (see fig.2, antenna 20, see column 3, lines 45-58 and see column 4, lines 49-64), characterized in that in a state where the first and the second chassis are opened (see fig.2, two chassis are opened), the whip antenna is pulled out in a direction of approaching the first chassis and is held (see fig.2, the antenna 20 is pulled out in a direction of approaching the first chassis).

Woo does not specifically disclose the antenna is pulled out in a direction of approaching a back surface side of the first chassis and is held.

Aoto teaches the antenna is pulled out in a direction of approaching <u>a back</u> <u>surface side</u> of the first chassis and is held (see Abstract, column 1, line 65 to column 2, line 39, see "*pulled out with <u>an inclination</u>*", also see fig.2, antenna 1 with an inclination. Since Aoto's antenna can be pulled in any direction with respect to an inclination, the teaching of Aoto inherently teaches applicant's claimed limitation).

Application/Control Number: 10/517,365

Art Unit: 2686

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Aoto into the system of Woo so that the antenna can be adjusted for better radio signal.

Regarding claim 2, Woo teaches the whip antenna is formed into a curved shape in advance (see 3, lines 45-58, since Woo teaches whip antenna, the teaching of Woo inherently teaches the antenna can be formed into a curved shape in advance as claimed). Woo does not specifically disclose that the antenna approaches the back surface side of the first chassis pulled-out state.

Aoto teaches that the antenna approaches the back surface side of the first chassis pulled-out state (see Abstract, column 1, line 65 to column 2, line 39, see "pulled out with <u>an inclination</u>", also see fig.2, antenna 1 with an inclination. Since Aoto's antenna can be pulled in any direction with respect to an inclination, the teaching of Aoto inherently teaches applicant's claimed limitation).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Aoto into the system of Woo so that the antenna can be adjusted for better radio signal.

Regarding claim 3, Woo teaches a folding type portable radio communication terminal and whip antenna according to claim 1. Woo does not specifically disclose a tip of the antenna comes in contact with the back surface of the first chassis in the middle of an open operation of the first and the second chassis, and when the open operation is further performed, whip antenna extended while the tip slides on the back surface the first chassis.

Application/Control Number: 10/517,365

Art Unit: 2686

Aoto teaches a tip of the antenna comes in contact with the back surface of the first chassis in the middle of an open operation of the first and the second chassis, and when the open operation is further performed, antenna extended while the tip slides on the back surface the first chassis (see Abstract, column 1, line 65 to column 2, line 39, see "pulled out with an inclination", also see fig.2, antenna 1 with an inclination. Since Aoto's antenna can be pulled in any direction with respect to an inclination, the teaching of Aoto inherently teaches applicant's claimed limitation).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Aoto into the system of Woo so that the antenna can be adjusted for better radio signal.

Regarding claim 4, Woo further teaches the folding type portable radio communication is constructed in such a way that in a state where the first chassis and the second chassis are closed (see fig.2, cover 10a can be closed into main body 10b), the coupling part (see fig.2, item 15) side end part of the second chassis protrudes more than the coupling part side end part of the first chassis (see fig.2), and the whip antenna is provided to be capable of being pulled from a protruding portion of the second chassis (see fig.2, the whip antenna is provided to be capable of being pulled from a protruding portion of the second chassis as claimed).

Regarding claim 5, Woo further teaches the whip antenna constructed be positioned substantially at a center the coupling part side end part of the second chassis (see fig.2).

Regarding claim 6, Woo teaches a folding type portable radio communication terminal and whip antenna according to claim 1. Woo does not specifically disclose the antenna is pulled out in a direction inclined by a specified angle from a vertical direction with respect to an end surface of the second chassis and is held.

Aoto teaches the antenna is pulled out in a direction inclined by a specified angle from a vertical direction with respect to an end surface of the second chassis and is held (see Abstract, column 1, line 65 to column 2, line 39, see "pulled out with an inclination", also see fig.2, antenna 1 with an inclination. Since Aoto's antenna can be pulled in any direction with respect to an inclination, the teaching of Aoto inherently teaches applicant's claimed limitation).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Aoto into the system of Woo so that the antenna can be adjusted for better radio signal.

#### Conclusion

- 5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
  - a. Ono (US 6,782,273) teaches portable wireless apparatus.
  - b. Kim (US 6,897,825) teaches antenna apparatus for folder type mobile phone.
  - c. Holshouser (US 6,249,688) teaches antenna electrical coupling configurations.

Application/Control Number: 10/517,365 Page 7

Art Unit: 2686

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi H. Ly whose telephone number is (571) 272-7911. The examiner can normally be reached on 8:30 am-5:30 pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nghi H. Ly

Marsha D Bank-Harold

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